To: Oman, Jack[Jack.Oman@bp.com]
Cc: Rodriguez, Dante[Rodriguez.Dante@epa.gov]; 'Davis, David' (drdavis@blm.gov)[drdavis@blm.gov]; Phelps, Travis (Travis.Phelps@arcadis.com)[Travis.Phelps@arcadis.com]; John Batchelder[jbatchelder@envirosolve.com]; Keller, Patrick <Patrick.Keller@arcadis.com> (Patrick.Keller@arcadis.com)[Patrick.Keller@arcadis.com]; Mattucci, Rich (BROWN & CALDWELL)[RMattucci@brwncald.com]; Sandy Riese[sriese@ensci-inc.com]
From: Jeryl Gardner
Sent: Thur 9/21/2017 7:37:26 PM
Subject: Re: EVS Operation Update

;;;;;;;;;
;;;;;;;;;
Great report!

Thanks,
Jeryl

Sent from my iPhone

On Sep 21, 2017, at 11:54 AM, Oman, Jack <Jack.Oman@bp.com> wrote:

> Dante, Jeryl and Dave,
>
> As we discussed, the bullets below present updated operational statistics of the ongoing enhanced evaporation efforts at the Yerington site. The results of the particulate monitoring will be forwarded shortly. We are continuing to operate the system, weather permitting.
>
> Please let me know if anyone would like to discuss in greater detail.
>
> Thanks,
>
> -jack
>
> **From:** Phelps, Travis [mailto:Travis.Phelps@arcadis.com]
> **Sent:** Wednesday, September 20, 2017 6:40 AM
> **To:** Oman, Jack; 'John Batchelder'
> **Cc:** Keller, Patrick
> **Subject:** RE: EVS Operation Update
>
> Jack,
>
> Please see some key pilot study updates for the Enhanced Evaporation System (EVS) at the Anaconda Copper Mine Site:
>
> - Pilot Study of the EVS began 8-8-2017, and has only been operated Monday through Fridays with the exception of one Saturday 9-16-2017.

- As of 9-18 about 906,200 gallons has been evaporated through the EVS at an average of about 42,000 gallons per day.
- The EVS system was not operated during cloudy, extremely windy (>20 mph) or rainy days.
- There has not been more than 2-3" of standing fluids during operation of the EVS, and most days nearly all standing fluids have been evaporated by the next morning.
- The fluids are pumped using a Godwin trailer mounted self-priming pump with diesel generator at the NW corner of Evaporation Pond B with a 6" intake pipe placed as close to the bottom of the pond as possible.
- The fluids are conveyed through a 4" DR11 HDPE pipe running straight up the side of the VLT HLP from Pond B to the evaporation arrays.
- The evaporation arrays are constructed out of 2" HDPE placed in a 40 mil HDPE lined evaporation basin at the south end of the VLT HLP.
- Average flow of the EVS without exceeding design pressure of the pipes is about 163 gpm.
- With the exception of up to about 15 feet to the west of the lined basin where some salts are accumulating, no overspray is being observed. There is more than 300 feet to the edge of the HLP VLT on the west side, and no overspray is observed past 15 feet.
- In addition to nearly removing a million gallons of fluid from the FMS, the EVS has removed approximately 1,700 cubic yards of salt precipitate (approximately 4" across 140,000 ft2 of basin). Once the system is shut down for the season and the precipitate dries out, a tonnage estimate will be made using the density of the material.
- During operation there has been no inflow fluxes to the VLT Pond, indicating that all the fluid is evaporating and none is recirculating back into the HLP.

Best Regards,

Travis Phelps, EI | Project Civil Engineering Specialist | travis.phelps@arcadis.com

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